

Pre-electronic Age References on Reproductive Physiology Across Many Species of Mammals and Birds

**(About 14,000 references here from the files of Robert H. Foote,
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As a graduate student in the late 1940s, I wanted to expand my knowledge of comparative reproductive physiology, nutrition and genetics for professional improvement and to assist hundreds of undergraduate students I helped teach. Cornell has wonderful libraries. I soon had 60 scientific journals, plus abstract journals, that I checked every month at our libraries. I developed triplicate abstract forms with a 3" x 5" perforated reference form to file by author with two 5" x 8" forms to add a brief abstract cross-filed under two subject matter headings. Included was a notation to indicate that a reprint had been sent for. By the time of the electronic age in the early 1980s I had accumulated about 15,000 reprints and 25,000 references. These included classic bulletins, a commonly used route to publish scientific data in the old days, as few scientific journals were available. Some bulletins are not even available in the National Agricultural Library, but Cornell will be saving the most important ones.

Now, what is on the attached list?

The species and subject covered are summarized on the following pages. The typed references follow.

This typed list was started in 1966 to help about 200 undergraduates I taught to pick a topic for a term paper and give them clues on where to start in the library. Remember there were **no computers or electronic aids available then**. I had made my file of abstract cards available starting in 1950. However, cards were lost or misfiled, so the system needed to be improved. In 1966 when I had time, or there was a lull in the office, data on accumulated cards were typed in notebooks before filing the cards. This was a great help to thousands of students and fixed in my mind thousands of references and authors on hundreds of topics. I also cited a few recent texts on reproductive physiology and one old classic, *The Physiology of Reproduction* by F.H.A. Marshall, 1910.

Enjoy the ride as I hope you will find references to basic discoveries and practical advances that were exciting at the time, and are a part of the major advances in knowledge during the past half century. Also be generous in noting critically that there are some references typed on old typewriters with old ribbons, there are corrections typed over the errors, partial "Wite Outs", etc. Perhaps I didn't get every page cleaned up where a student spilled a cup of coffee. So enjoy also the conveniences of modern technology as you reflect on these references copied by modern technology for free. Unfortunately, the 10,000 reference cards before 1966 (a few citing publications 50 years earlier) cannot be copied inexpensively, so they will become recycled paper.

Listing of Codes Used to Identify Species Included. (Species codes precede each reference listed).

All	=	general reference or review with many species.
Bats	=	bats.
Birds	=	mostly chickens (sometime Ch) and turkeys.
Buf	=	buffalo.
C or Ca	=	cattle, all kinds.
Camels	=	camels.
Cat	=	cat or other felines. Also see zoo animals.
D	=	dogs; wolf included.
Elephants	=	elephants; may also find under zoo animals.
Fish	=	fish.
F	=	fur animals.
G	=	goats; deer; also sometimes camels.
Ha	=	hamsters. Also see rodents.
H	=	horses, mules.
Hu	=	humans and other primates (Pr).
Mi	=	mice; also often listed under rodents (Ro).
M or Misc.	=	miscellaneous. (A few may be Mi.)
Ra	=	rabbits.
Ro	=	rodents, most rats and mice. Also hamsters, guinea pigs.
Sh	=	sheep; alpaca
Sw	=	swine.
Woodchucks.		Of special interest because of farm experience.
Zoo	=	zoo animals of many types.

Classification of References on Reproductive Physiology

1-9 Male Reproductive Physiology

- 1.0 Male tract-gross anatomy
- 1.1 Male tract-histology, histochemistry
- 1.2 Male tract-sexual development
- 1.3 Male tract-nervous system control
- 2.0 Spermatogenesis, testis cytology
- 2.1 Testis temperature (see 22.0)
- 2.2 Testis biopsy and testis evaluation
- 2.3 Experimental castration
- 3.0 Sperm transport through the tract
- 3.1 Sperm capacitation and acrosome reaction
- 3.2 Secretions of tract, accessory glands
- 3.3 Sperm transport changes in females (see 14.0)
- 3.4 Sperm aging
- 3.5 Male aging-collagen
- 4.0 Semen collection preparation
- 4.1 A.V., electroejaculation
- 4.2 Sperm output and collection procedures
- 5.0 Composition of semen, plasma, sperm
- 5.1 Sperm composition in detail including DNA
- 5.2 Sperm morphology
- 5.3 Sperm motility
- 5.4 Sperm concentrations, counting procedures
- 5.5 Sperm metabolism
- 5.6 Other criteria of semen quality
- 5.7 Sperm size changes, osmotic effects
- 5.8 Acrosome – DF, acrosin (see 5.1)
- 6.0 Preserving semen-liquid extenders
- 6.1 Preserving semen-liquid processing, dilution
- 6.2 Preserving semen-frozen extenders

- 6.3 Preserving semen-frozen dilution
- 6.4 Preserving semen-frozen equilibration; glycerol
- 6.5 Preserving semen-freezing, storing
- 6.6 Antibiotics, additives in extenders, including toxic substances
- 6.7 Freeze-drying; also general cryobiology
- 6.8 Artificial insemination techniques; heterospermic
- 6.9 Non-return rates to measure fertility; fertility in A.I.
- 7.0 Environment-light, temperature effects on reproduction and sperm; also cryptorchids (also 2.1)
- 7.1 Drugs and reproduction (also 34.0)
- 7.2 Pheromones
- 8.0 Behavioral studies
- 9.0 Fertility and sterility-also vasectomy and non-drug contraception (also 39.0)

10-19 Female Reproductive Physiology

- 10.0 Female tract-gross anatomy
- 10.1 Female tract-histology, histochemistry
- 10.2 Female tract-sexual development
- 10.3 Female tract-nervous system control
- 11.0 Oogenesis, oocyte formation
- 11.1 Follicle, ova (also see 23.1)
- 11.2 Corpus luteum (also see 23.2)
- 12.0 Secretions of female tract
- 12.1 Foreign material in the female tract; IUCD's etc.
- 13.0 Estrous cycle-general; menstrual cycle
- 13.1 Estrous cycle-synchronization, regulation

- 13.2 Ovulation, and tests
- 13.3 Superovulation
- 13.4 Ovum collection and evaluation
- 13.5 Ovum culture, storage (see 42.0)
- 13.6 Ovum transfer
- 13.7 Ovum aging
- 13.8 Female aging
- 14.0 Fertilization of ova, general, including in vitro (also 3.3)
- 14.1 Transport of fertilized ovum
- 14.2 Pre-implantation development
- 14.3 Ovum, blastocyst metabolism
- 14.4 Implantation
- 15.0 Pregnancy tests, placental function
- 15.1 Fetal development, embryology
- 15.2 Fetal anomalies, intersexes, mortality
- 15.3 Parturition and post-partum changes (see 15.8); gestation length
- 15.4 Sex determination
- 15.5 Sex ratios
- 15.6 Multiple births
- 15.7 Neonatal development and growth (also 1.2, 15.1)
- 15.8 Post-partum involution and breeding efficiency
- 15.9 Cloning, stem cells
- 16.0 Mammary gland, milk secretion
- 16.1 P₄ in milk - diagnostic aid
- 17.0 Environment, light, temperature
- 17.1 Drugs and reproduction (also 34.1)
- 17.2 Pheromones
- 17.3 Exercise
- 18.0 Behavioral studies
- 19.0 Fertility and sterility and tubal ligation, contraception (see also 34.0, 39.0)
- 20-29 Endocrines**
- 20.0 Pituitary, anatomy

- 20.1 FSH, PMS
- 20.2 LH, ICSH, HCG
- 20.3 Oxytocin
- 20.4 Prolactin
- 20.5 Growth hormone
- 21.0 Hypothalamus
- 21.1 Releasing factors
- 22.0 Testis, testosterone (see 2.0)
- 22.1 Androgen receptor proteins
- 22.2 Inhibin
- 23.0 Ovary
- 23.1 Estrogen (see 11.1)
- 23.2 Progesterone (see 11.2)
- 23.3 Estrogen, P₄ receptor proteins
- 24.0 Pineal body
- 25.0 Thyroid
- 26.0 Adrenal – corticoids
- 27.0 Pancreas
- 28.0 Mechanism of hormone action
- 29.0 Placental lactogen
- 30-39 Cell, radiation, pathology, immunology, genetics**
- 30.0 Cell physiology, general
- 30.1 Aging of cells (see 3.4, 13.7)
- 30.2 Membrane
- 30.3 Lipids
- 31.0 Nutrition and reproduction
- 31.1 Energy and growth
- 31.2 Carbohydrates
- 31.3 Proteins
- 31.4 Lipids
- 31.5 Minerals
- 31.6 Vitamins

- 32.0 Radiation & isotopes-general, aging
- 32.1 Effects on spermatogenesis (also see 4.2)
- 32.2 Effects on oogenesis
- 32.3 Mutation effects
- 32.4 Labeling of sperm, ova & their DNA
- 32.5 Labeling of reproductive male parts (also. 2.0)
- 32.6 Labeling of reproductive female parts (also 11.0)
- 32.7 Labeling DNA, chromosomes
- 33.0 Pathology, reproductive
- 33.1 Inherited defects
- 33.2 Fertility and sterility (see 9.0, 19.0)
- 33.3 Viral agents, embryo transmission
- 34.0 Miscellaneous drugs and reproduction (also 7.1, 17.1)
- 34.1 PGF_{2α} and other PGs
- 35.0 Immunology (see 1-9, 10-19)
- 35.1 Sperm antigens
- 35.2 Seminal plasma antigens
- 35.3 Reproductive tract antigens
- 35.4 Testis, ovary, skin grafts
- 35.5 Antihormones, LH, FSH
- 35.6 Tolerance alteration
- 35.7 Blood groups and fertility & circulating antigens, also diluent A.I.
- 35.8 Ab and sperm agglutination
- 35.9 Monoclonal antibodies (Ab)
- 36.0 Genetics, general
- 36.1 Blood groups
- 36.2 Other single locus
- 36.3 Heritabilities, especially reproductive traits
- 36.4 Nucleic acids, DNA, biochemical measurements
- 36.5 Chromosomes
- 36.6 Evaluation of animals – models
- 36.7 Genetic gain in A.I.
- 36.8 Genetic evaluation of human donors for A.I.
- 36.9 Genetic gain from embryo transfer

- 37.0 Philosophy of science

- 38.0 Evolution

- 39.0 Human population – control

- 39.1 Contraception – all species

40-49 Methodology

- 40.0 Sperm

- 40.1 Sperm separation

- 40.2 Sperm membranes and alteration

- 41.0 Chromosomes (also 36.5, 32.7)

- 42.0 Tissue culture (see 13.5)

- 42.1 Organ culture

- 43.0 Staining & microscopy, phase, interference

- 44.0 Histology, cytology, also surgery, anesthesia and biopsy

- 44.1 Microtechniques, eggs, embryos, genetic engineering

- 45.0 Isotopes, ARG's (see 32.0)

- 46.0 Hormone assay, bioassay

- 46.1 Hormone implants

- 47.0 Chemical, biophysical, general

- 47.1 Chromatography

- 47.2 Enzymology

- 48.0 Blood flow

- 49.0 Ultrasonics & telemetry

- 49.1 Statistics

- 50. Safety in the lab

Other Reviews and Compilations of Early References

In addition to the general standard abstract services that existed for many years, additional sources that I found useful were these.

1. Julius S. Greenstein, ed. Current Bibliographic Index of Mammalian Reproduction. A series of these appeared in the International Journal of Fertility in the 1960s and continued in Contraception in the early 1970s. Thousands of references were listed under a variety of headings.
2. Reproduction Research Information Service Ltd., 8 Jesus Lane, Cambridge, U.K. This organization I believe had some connection with the Society for the Study of Fertility, publishers of the Journal of Reproduction and Fertility. References with abstracts were published on over 100 subjects, often covering references in the 1950s up through 1979 when I stopped subscribing to the service. The most extensive review by Adams et al. was on "Recovery and transfer of mammalian eggs and ovarian transplantation" with 595 references from 1887-1971.
3. Population Reports. Published by The INFO Project, Communications Programs, The Johns Hopkins School of Health, 111 Market Place, Suite 310, Baltimore, MD 21202, published a wealth of reviewed material on multiple subjects worldwide related to human populations, fertility, contraception, sex education, maternal health, diseases such as HIV/AIDs, etc. Hard copies published for decades have been replaced with an electronic network www.infoforhealth.org.
4. Sex and Internal Secretions, ed. by W.C. Young, 3rd ed. The Williams & Wilkins Co., Baltimore, MD. 1961. This edition in two volumes, as well as the previous two editions, is an extraordinary critical review of thousands of research papers dealing with reproduction in mammals, birds and submammalian vertebrates.

Many other excellent reviews and references have been published. Some of these references are listed on this DVD in my "Highlights in Dairy Cattle Reproduction in the Last 100 Years" covering selected references through 2005.

1.0 Male tract- GROSS ANATOMY

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